

WHAT IS CLAIMED IS:

1. An optical image detector that illuminates incident lights on a surface of an object to generate an image for surface morphology of the object, the
5 optical image detector comprising:

a light source; and

an incident light generator receiving lights of the light source to generate at least two groups of incident lights having different incident angles with respect to the surface of the object.

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2. The optical image detector according to claim 1, wherein the incident light generator comprising:

a first reflecting plate reflecting the lights of the light source to generate a first group of incident lights having a first incident angle with respect
15 to the surface of the object;

a second reflecting plate reflecting the lights of the light source to generate a second group of incident lights having a second incident angle greater than the first incident angle with respect to the surface of the object; and

a third reflecting plate reflecting the lights of the light source to
20 generate a third group of incident lights having a third incident angle greater than the second incident angle with respect to the surface of the object.

3. The optical image detector according to claim 1, further comprising an optical sensor that is disposed over the surface of the object to sense the

lights reflected from the surface of the object, wherein the optical sensor converts an image for the surface morphology of the object into photocurrents.

4. A navigation device comprising:

- 5 a case including a lower panel having an opening;
- a light source installed in the case; and
- an incident light generator disposed to be adjacent to the light source and receiving lights of the light source to generate at least two groups of incident lights having different incident angles with respect to the surface of the object, wherein the incident lights being illuminated on the surface of the object through the opening.
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5. The navigation device according to claim 4, wherein the light source is a light emitting device that generates infrared or visual spectrum rays.

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6. The navigation device according to claim 4, wherein the at least two groups of incident lights comprising:

- a first group of incident lights having a first incident angle with respect to the surface of the object;
- 20 a second group of incident lights having a second incident angle greater than the first incident angle with respect to the surface of the object; and
- a third group of incident lights having a third incident angle greater than the second incident angle with respect to the surface of the object.

7. The navigation device according to claim 6, wherein the incident light generator comprising:

a first reflecting plate reflecting the lights of the light source to generate the first group of incident lights;

5 a second reflecting plate reflecting the lights of the light source to generate the second group of incident lights; and

a third reflecting plate reflecting the lights of the light source to generate the third group of incident lights.

10 8. The navigation device according to claim 4, further comprising an optical sensor that is disposed over the opening to sense the lights reflected from the surface of the object, wherein the optical sensor converts an image for the surface morphology of the object into photocurrents.

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